What is claimed is:

1. An isolated transcription factor involved in a hedgehog-mediated signaling pathway, said transcription factor comprising at least one phosphorylation site, wherein said transcription factor is dephosphorylated in response to said hedgehog mediated signaling pathway, and said transcription factor binds to a hedgehog response element.

2. The transcription factor of claim 1, wherein said hedgehog response element is a sonic hedgehog response element (ShhRE).

3. The transcription factor of claim 2, wherein said sonic hedgehog response element comprises a nucleic acid sequence comprising 5'-GTTCTACATAATGCGCCG-3' (SEQ ID NO:1).

4. A method for modulating expression of a target gene, said method comprising modulating the phosphorylation of a transcription factor that interacts with a hedgehog response element, wherein said hedgehog response element is operatively associated with said target gene.

5. The method of claim 4, wherein said target gene is involved in a hedgehog signaling pathway.

6. The method of claim 4, wherein said phosphorylation of said transcription factor is modulated by affecting the activity of a phosphatase.

7. The method of claim 4, wherein said modulation is inhibition.

8. The method of claim 4, wherein said modulation is stimulation.

9. The method of claim 6, wherein said phosphatase is expressed from a vector, said vector comprising a nucleic acid sequence which encodes said phosphatase.

10. The method of claim 6, wherein said phosphatase is a PP2A phosphatase.

11. The method of claim 6, wherein said phosphatase is inhibited by a PP2A phosphatase inhibitor.

12. The method of claim 11, wherein said phosphatase inhibitor is okadaic acid.

13. The method of claim 11, wherein said phosphatase inhibitor is calyculin A.

14. The method of claim 4, wherein said hedgehog signaling pathway is selected from the group consisting of Drosophila, Zebrafish, Xenopus, chicken, murine and human hedgehog signaling pathways.

15. The method of claim 4, wherein said hedgehog signaling pathway is human hedgehog signaling pathway.

16. The method of claim 4, wherein said transcription factor is a Ci/Gli transcription factor family member.

17. The method of claim 16, wherein said transcription factor is Ci.

18. The method of claim 16, wherein said transcription factor is a Gli family member.

19. The method of claim 4, wherein said response element is a Ci-response element.

20. The method of claim 4, wherein said response element is a Gli-response element.

21. The method of claim 4, wherein said response element is a sonic hedgehog response element.

22. The method of claim 21, wherein said sonic hedgehog response element comprises a nucleic acid sequence comprising 5'-GTTCTACATAATGCGCCG-3' (SEQ ID NO:1).

23. The method of claim 21, wherein said transcription factor interacts with said sonic hedgehog response element.

24. The method of claim 4, wherein said target gene is the ptc gene.

25. The method of claim 4, wherein said target gene is a gene encoding COUP-TFII.

26. A method for modulating proliferation or differentiation of neuronal cells comprising modulating the phosphorylation of a transcription factor that interacts with a hedgehog response element operatively associated with a target gene, said target gene encoding a polypeptide that modulates proliferation or differentiation of neuronal cells.

27. The method of claim 26, wherein said target gene encodes COUP-TFII.

28. The method of claim 26, further comprising detecting the proliferation or differentiation of said neuronal cells.

29. The method of claim 28, wherein said detecting comprises assaying for the presence of a neuronal marker.

30. The method of claim 29, wherein said neuronal marker is selected from the group consisting of Isl1, HNF3β and SC-1.

31. A method for treating a cell proliferative disorder in a subject, said method comprising modulating the phosphorylation of a transcription factor that interacts with a hedgehog response element by administering to the subject a modulating effective amount of a phosphatase inhibitor.

32. The method of claim 31, wherein said response element is operatively associated with a target gene.

33. The method of claim 32, wherein said target gene is the ptc gene.

34. The method of claim 31, wherein the cell proliferative disorder is selected from the group consisting of basal cell carcinoma, medulloblastoma and meningioma.

35. A method for inhibiting bone defects in a subject, said method comprising modulating the phosphorylation of a transcription factor that interacts with a hedgehog response element operatively associated with a target gene, said target gene encoding a polypeptide involved in mediating bone development.

36. A method for diagnosing a hedgehog signaling pathway-mediated familial midline defect in a subject comprising determining the level of phosphorylated transcription factor as compared to the level of dephosphorylated transcription factor, wherein said transcription factor interacts with a hedgehog response element in response to said hedgehog signaling pathway; and correlating said level of phosphorylated transcription factor as compared to said level of dephosphorylated transcription factor with the susceptibility for a familial midline defect.

37. The method of claim 36, wherein said familial midline defect is selected from the group consisting of cyclopia and neural tube defect.

38. A method for identifying a compound that inhibits a phosphatase involved in a hedgehog signaling pathway comprising:

a) incubating components comprising the compound, a transcription factor that binds to a hedgehog response element operatively associated with a target gene, and a phosphatase, under conditions sufficient to allow the components to interact; and

b) measuring the ability of the compound to affect the hedgehog signaling pathway by detecting an increase or decrease in expression of the target gene.

39. The method of claim 38, wherein the hedgehog signaling pathway is the sonic hedgehog signaling pathway.

40. The method of claim 38, wherein the target gene is chloramphenicol acetyl transferase (CAT).

41. The method of claim 38, wherein the target gene is a lacZ gene.

42. The method of claim 38, wherein the response element is ShhRE.

43. The method of claim 38, wherein detection of expression is by detection of protein product.

44. The method of claim 38, wherein detection of expression is by detection of mRNA.

45. The method of claim 38, wherein the target gene further includes a reporter means is selected from the group consisting of a radioisotope, a fluorescent compound, a bioluminescent compound, a chemiluminescent compound, a metal chelator, or an enzyme.

46. A method for identifying a compound which affects a hedgehog signaling pathway comprising:

a) incubating components comprising the compound, a phosphorylated transcription factor that binds to a hedgehog response element and a phosphatase,under conditions sufficient to allow the components to interact; and

b) measuring the ability of the compound to affect hedgehog signaling pathway by detecting the phosphorylation state of the transcription factor in the presence and absence of the compound.